

BOOK REVIEWS

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The Directory of Australian Birds: Passerines.— Richard Schodde and Ian J. Mason. 1999. CSIRO Publishing, PO Box 1139 (150 Oxford Street), Collingwood, Victoria 3066, Australia. x + 851 pp., 5 text figures, 40 pen-and-ink drawings, 342 maps. ISBN 0-643-06456-7. US\$180.00 (cloth).

This auspicious tome inaugurates a projected threevolume series covering the systematics and geography of Australia's magnificent avifauna. Rich in endemics, radiations, and challenging patterns of speciation, the perching birds of the continent have long deserved a modern, comprehensive analysis. The enormity of the challenge, however, dissuaded everyone except Schodde and Mason. Admitting that a definitive treatment would require decades of additional research, these authors opted instead to provide an inventory of Australian passerine diversity that, however approximate, "gets information out to biologists, environmental planners and managers, and the public *now.*" They have succeeded admirably by producing a treatise of remarkable scope and sophistication.

The authors dedicated the series "to the collectors of Australian birds for their foundation data;" this volume was dedicated to Julian Ford, Allen Keast, Ernst Mayr and Shane Parker for their pathbreaking research. I commend Schodde and Mason for respecting the labors of past workers who set the stage for their modern analysis. This elaborate tome describes the detailed appearance and presents careful distribution maps for all 726 forms (342 species) of Australian perching birds. At the outset the authors boldly innovate by proposing a new fundamental unit of analysis, the ultrataxon. Defined as "a taxon at the end of any phylogenetic lineage, at whatever rank," this category thus includes conventional subspecies plus monotypic species. Importantly, the category thereby bypasses much of the controversy and intellectual baggage surrounding subspecies and "phylogenetic" species while simultaneously retaining the biological species concept in which the authors expressly believe. Conservationists and managers can now deal directly with distinctive geographic forms of species without concern for their taxonomic rank. Likewise, birders can travel about listing such regional entities, a significant number of which are recognizable in the field. As Schodde and Mason clearly appreciate, it is important to note that the designation of geographic forms as ultrataxa instead of subspecies still does not obviate the need for their eventual definition or rejection through objective, quantitative appraisal of morphology, color, voice and genes. To that end we can expect in the future many refined analyses of specific systematic and distributional problems for which the present volume will serve as a launching pad.

A total of 35 families of passerines is treated, each introduced and characterized by a 1–3 page account. Highly readable, with strong, tight prose, these introductory sections provide synopses of foraging behavior, habitat use, reproductive biology, social behavior, distinctive morphological and anatomical features, and sequence and

number of genera and species. The family accounts also include many pertinent biogeographic comments, notes on departures in taxonomic treatment from other authors, relevant molecular systematic information, and attractive drawings of representative species. I know of no better overviews for the families covered.

The detailed descriptions of all passerine ultrataxa plus a distribution map for each species comprise the heart of the book. Forty-six previously undescribed ultrataxa, all subspecies, are included. The superb, broad-brush maps portray the regional occurrence of each form by distinctive shades of blue or gray. Zones where taxa abut and intergrade are clearly indicated. In serving as the foundation reference for all future systematic investigations of passerine birds in Australia, this book should stimulate a plethora of revisions in which precise specimen localities can be plotted. The authors candidly admit that "the taxonomic conclusions reached here are only as good as the specimen base from which they were drawn, and must be considered provisional for many species because so many geographic gaps still remain in available material." Let us hope that regulatory authorities will cooperate with future workers, enabling them to obtain the proper material for the necessary systematic-phylogenetic-distributional studies yet to be undertaken.

An invaluable 27-page glossary, divided into three sections, and with 948 entries, follows the species accounts. Included here are terms pertaining to geography, ecology, and the geologic time-scale; taxonomic, genetic, and evolutionary terms; and definitions of morphological and anatomical characters. Each entry is clearly worded and, insofar as I could determine, accurate. Five text figures identify geographic regions and subregions used in the distributional diagnoses of ultrataxa, barriers initiating geographic differentiation, and anatomical features of the humerus and skull in various Australian perching birds. An exhaustive list of 858 references, and indices of scientific and common names conclude the treatise. Such thoroughness illustrates the uncommon level of scholarship and deep quality seen throughout this work. The encyclopedic knowledge, care, and dedication of the authors is evident on every page.

Baby-sized at 6 lb. 4 oz. (2.87 kg), this book does not belong in a backpack; a field guide it is not. Instead, as a detailed reference work of lasting importance, this volume should be on the shelf of every personal and institutional library. Avian systematists and bioresource managers, especially Australian professionals, will find it indispensable for decades. Biologists on other continents can now look enviously at the kind of volume they desperately need, but do not yet have, for their own region.—NED K. JOHNSON, Museum of Vertebrate Zoology, 3101 Valley Life Sciences Building, University of California, Berkeley, CA 94720-3160 USA, e-mail: neddo@socrates.berkeley.edu

Handbook of the Birds of the World. Vol. 5. Barn-owls to Hummingbirds.—Josep del Hoyo, Andrew Elliot, and Jordi Sargatal, eds. 1995. Lynx Edicions, Barcelona. 762 pp., 76 color plates, 405 color photographs, 756 distributional maps. ISBN 84-87334-25-3. \$185.00 (cloth).

Now that volume 5 is published, the Handbook of the Birds of the World is nearly half complete (12 total volumes are projected in the series). For the first time, ornithologists and others interested in birds have all the species of 85 out of 176 families at their fingertips. While all the volumes in this series have been outstanding, what is more remarkable about this volume is that all of the groups included are difficult to study and photograph. Nevertheless, this volume does a fine job illustrating and summarizing the biology of the following families: Tytonidae (barn-owls), Strigidae (typical owls), Steatornithidae (oilbird), Aegothelidae (owlet-nightjars), Podargidae (frogmouths), Nyctibiidae (potoos), Caprimulgidae (nightjars), Apodidae (swifts), Hemiprocnidae (tree-swifts), and Trochilidae (hummingbirds). In addition to covering the species in these families, this volume opens with a good summary by Nigel Collar on factors that may cause bird species to be at risk. In addition, the IUCN (International Union for the Conservation of Nature) system for identifying threatened species is outlined. In his summary, Collar reminds us that although we may celebrate the fact that all birds of the world can be illustrated and described in a single collection of books, this is possible only because increased human activities have made the habitat of all species at least somewhat accessible.

As in the previous volumes, the spectacular photographs are one of the main attractions of this book. Many of these show the various species in their natural environment and also often illustrate important aspects of their natural history. Standout examples include a Spectacled Owl (Pulsatrix perspicillata) ejecting a pellet, a Bee Hummingbird (Mellisuga helenae) going into torpor, a Sundra Frogmouth (Batrachostomus cornutus) brooding its young, and an Antillean Crested Hummingbird (Orthorhyncus cristatus) with its wings spread, illustrating details of the molt of its secondary feathers. In addition to the photographs, the book includes color plates that range in quality from good to outstanding. All of them do an excellent job of illustrating species differences as well as sexual dimorphism and in some cases geographic variation. Interspersed with the color plates are standardized accounts for each species including information on taxonomy, subspecies, distribution, descriptive notes, habitat, diet, movements, and conservation status. Perhaps as important as the information included in these accounts are the gaps in our knowledge that the accounts identify. Each family included in this book also has a wellwritten essay summarizing the general biology of members of that family.

In evaluating the usefulness of this book for scientific research, I must echo a criticism of previous reviewers of this series and point out that citations are not incorporated within the text of either the family summaries or the species accounts. This makes it extremely difficult to use the *Handbook* series as a starting point for other research. For example, the family summary of Trochilidae provides specific data on site fidelity for several species of hummingbirds (p. 520). At the end of the Trochilidae account is a general bibliography of 179 references (without titles), any of which could be the source of this information. One could search through the main reference list at the end of the book (which provides titles) with the hope of identifying the relevant papers. However, such a search would be incredibly time-consuming and still might not reveal the relevant sources. The authors of the family and species accounts obviously have compiled this information when writing the accounts, and it is unfortunate that it is not incorporated in the book itself. If space is a concern, color plates for each family could be arranged together, followed by all the species accounts for that family. So far in the series, color plates and species accounts are interspersed, resulting in many partially or entirely blank pages. I would prefer to have all the color plates of species in each family together anyway, as this would allow easier betweenspecies comparisons in plumage.

Despite this shortcoming, the many attributes of this volume and all the other volumes in this series make it well worth the purchase price. Anyone who is serious about birds should have access to this series.— KEVIN J. BURNS, Department of Biology, San Diego State University, San Diego, CA 92182-4614, e-mail: kburns@sunstroke.sdsu.edu

National Audubon Society Birder's Handbook.— Stephen W. Kress. 2000. Dorling Kindersley, New York. xi + 163 pp., 16 maps, >200 photographs and diagrams. ISBN 0-7894-5153-0. \$24.95 cloth.

This volume is a completely re-written version of the earlier (1981) book with the same title, with which many readers of The Condor are familiar. The introduction to the present edition states that it "is intended for both the beginning and experienced amateur birdwatcher," with a goal of helping them become more proficient "citizen scientists." It notes that "no other branch of science is as well endowed with enthusiastic [data collecting] amateurs as ornithology."

The author, Dr. Stephen Kress, is vice president for bird conservation of the National Audubon Society (NAS), and has written two previous works for the Society. He also heads "Project Puffin," the successful effort to re-establish the Atlantic Puffin on islands off the coast of Maine.

A succinct summary of the contents of the book can be found in its subtitle, "How to locate, observe, identify, record, photograph, and study birds." These themes are organized into its six chapters, which deal with "Birding Techniques," "Binoculars and Scopes," "Observing Birds," "Photographing and Recording Birds," "Bird Families of North America," and "Birding Hot Spots." There are also nine appendices which cover such topics as key reference works and internet sites, relevant organizations and suppliers, educational and research programs, and birding ethics.

As noted above, the volume is targeted at both new and long-time birders. The former will use it as their "bible," as it contains much information not found in standard field guides, such as locating birds using the "clock technique," estimating flock sizes, and a wealth of valuable hints about bird behavior. But experienced

202 BOOK REVIEWS

birders will also find useful information in its chapters, perhaps on taping calls or finding new web sites.

I particularly commend the lengthy sections on bird activities, habits, and behaviors. This is very helpful information for beginning birders, who profit greatly from knowing which birds tend to be solitary as opposed to those that are communal, or which ones are almost always seen in flight versus those generally seen on the ground. This type of information is often not covered in the field guides, especially not in a comparative manner.

The book has been well edited and proofread, and contains very few errors, but there are some, such as the suggestion that "phoebes are the only flycatchers to engage in tail-wagging" (p. 5), the statement that there are three species of mergansers and sea ducks in North America (p. 95), incorrect locations of some venues (Monomoy National Wildlife Refuge, Hawaii Volcanoes National Park) on the birding maps, and use of the misnomer "Latin names" to refer to scientific names (p. 88).

It does, moreover, contain what I consider to be some odd omissions. As examples, under "sources" there is no mention of Project VIREO, the book contains no mention of rare bird alerts, has virtually nothing on bird migration, and no glossary of bird-related terms and phrases. It also asks those interested in bird feeders or nest boxes to buy other NAS publications. Strangely, the bibliographic "bird finding" section doesn't even mention the widely used ABA/Lane series. And most curiously, this NAS-sponsored book, under "Education Programs," neglects to list Audubon's own highly regarded "Audubon Adventures" program for schools. Most of these omissions can be easily cleaned up for a second printing.

Should there be a revised second edition for this very broad-ranging handbook, I would recommend that it be split into two volumes, each with expanded subject matter: one volume targeting beginning birders, and one directed towards advanced birders. Members of the latter group, who usually own several field guides and check lists, don't need both a chapter and an appendix on bird families, and neophytes will rarely have need for major sections on taping calls and taking professional field notes. Adding some of the topics suggested in the preceding paragraph, and others, will easily fill two highly informative volumes.

Given that birding has been identified as America's fastest-growing avocation, this book will no doubt command a very wide readership. It is very attractively designed, with hundreds of illustrations inserted without borders into the text. It should serve well to promote the hobby of birding throughout North America. I will be recommending it in both the introductory and intermediate birding courses that I offer for the San Diego Audubon Society.—PHILIP R. PRYDE, Department of Geography, San Diego State University, CA 92182, e-mail: ppryde@mail.sdsu.edu

Working Bibliography of Cuckoos and Turacos of the World.—Johannes Erritzoe, with contributions by Oscar van Rootselaar. 2000. Johannes Erritzoe, Christiansfeldt, Denmark. 401 pp., 1 CD-ROM. ISBN 87-987835-0-5. \$65.00 (cloth).

This book provides a list of references on cuckoos and turacos numbered and ordered by author's name and year of publication. The list is also provided on a CD-ROM to facilitate searches. The electronic reference list is accessed through Adobe Acrobat, which is available free on the Internet. Some references, primarily those for which the title is not sufficiently informative as to subject matter, are accompanied by comments, such as the name of the studied species, geographical region concerned, and key words. This information is very useful for defining the scope of searches using the CD-ROM. A list of English common names and scientific names of cuckoos and turacos is presented, including the number(s) of pertinent references. Another section of the book organizes references by the country or geographical location where the study took place. Searches by geographical location can be done directly with the CD-ROM.

Although it is possible to perform searches using the CD-ROM, because the file is in .pdf format it is not possible to save the results. Instead, the user is limited to viewing the search results page-by-page, onscreen.

To evaluate how complete Erritzoe's reference list is, we compared his list to the cuckoo and turaco references through 1999 included in three publications on cuckoos (Aragon et al. 1999, J. Evol. Biol. 12:495-506; Hughes 1996, Auk 113:10-22; M. Robert 2000, Le parasitism de ponte chez les oiseaux: orige et evolution hôtes-parasites, Ph.D. dissertation, Université Pierre et Marie Curie, Paris), as well as some randomly chosen references from our own database on cuckoos. Of 304 references checked, 85.2% were in Erritzoe's book. Most of the missing references were from 1999 and 1998. When references from 1999 were removed from the comparisons, the percentage reached 90.9% (n = 276), and when 1998 was also excluded, the inclusion rate was 97.6% (n = 245). Finally, when only references published before 1996 were included in the comparison, only one reference was not found in the book (99.6%, n = 225). Therefore, although the book was published in 2000, it is obvious that many references from 1999, but also some from 1998, are missing. However, it can also be said that based on the comparisons presented here, most of the references on cuckoos and turacos are included in this book. Although some references, largely those from the most recent years, could not be included, this book is potentially a good tool for students and researchers looking for literature on these families, especially for finding references published in journals not included in general reference databases such as Current Contents, Biopsis, and ISI.-JUAN JOSÉ SOLER, Estación Experimental de Zonas Aridas, C.S.I.C., General Segura 1, 04001-Almería, Spain, e-mail: jsoler@eeza.csic.es, and MANUEL SOLER, Departamento de Biología Animal y Ecología, Facultad de Ciencias, Universidad de Granada, 18071-Granada, Spain.